Waste Management
ENVIRONMENTAL QUALITY

PAT MCCRORY
Governor

DONALD R. VAN DER VAART
Secretary

MICHAEL SCOTT
Director

August 18, 2016

Mr. Mathew F. Colone P.G.
CDM-Smith
5400 Glenwood Avenue, Suite 300
Raleigh, NC 27612

Re: Request for Work Plan and Cost Proposal
Task Order 673FP and FP-1
Bud Holding Company
10 & 12 Sharps Airpark Court
Greensboro, Guilford County
ID # NONCD0000673

Dear Mr. Colone:

Submit a task work plan and cost estimate to perform remedial investigation-contaminant delineation phase activities at the above referenced site. Conduct these activities in accordance with State Contract No. N13004S.

Investigation Goals: The goals of this investigation are to: conduct first phase assessment activities, resample surface water and sediment, screen existing landfill gas probes, determine wetlands and survey the site properties.

Scope of work for Task Order 673FP:

Sub Task A: Work Plan and Cost Estimate Preparation:

- Prepare a work plan in accordance with CDM-Smith's approved standard operating procedures dated May 30, 2013, and include a schedule of daily activities.
- Submit an itemized cost estimate that identifies personnel and materials involved.
- Reference the most recent Guidelines for Addressing Pre-Regulatory Landfills and Dumps for details regarding procedures.
- Ensure personnel in the field are qualified to identify contaminated material and landfill waste and comply with OSHA-required health and safety training. Before task activities begin, photograph areas or objects that may be disturbed. If needed, photograph affected areas and objects, restoration efforts, and noteworthy items encountered during task activities. Submit these photographs upon completion of the activities, and a review will determine if any need to be included in the report.
- Collect GPS coordinates along the waste disposal boundary. Report coordinates in decimal degrees to the seventh order using the North American Datum of 1983 (NAD83) format and latitude and longitude using WGS 84 format. These coordinates will be tabulated and included as an appendix.

- The tabulated coordinates for the landfill perimeter should start at the northernmost point of the perimeter and be listed in a clockwise progression around the perimeter.
- Include background (light grey) topographic contour lines on figures detailing the Site and Site vicinity.
- For any invasive activities, provide a plan to properly manage investigation derived waste (IDW). If sampling results indicate non-hazardous IDW, spread within the waste disposal area. If sampling results indicate hazardous IDW, analyze containerized waste as required by waste hauler and include details of sampling and disposal of drums in the proposal. Remove all drummed waste and associated fencing from site within 90 days after field activities are concluded.
- For any field work, minimize the clearing of vegetative material to enable access to proposed sampling points. Using hand tools for clearing is the preferred method, otherwise an explanation must be provided for use of heavy equipment.
- Submit samples to a North Carolina-certified laboratory and analyze for the following parameters by the most current U.S. EPA Contract Laboratory Program Target Compound List: volatile organic compounds by SW-846 method 8260, 1,4-dioxane by Method 8260SIM, semi-volatile organic compounds by SW-846 method 8270, 14 metals by SW-846 method 6020, mercury by method 7471, ammonia by SM 4500, and nitrate and sulfate by EPA Method 300. Please note that any alternate method should be the U.S. EPA Method having the lowest detection limit and that at least achieves the detections equivalent to the 15A NCAC 2L standards or where these are not available, then federal maximum contaminant limits (MCLs). Soil analysis methods must meet the IHSB Preliminary Soil Remediation Goals Table.
- Provide a 5-day turn-around time for the laboratory analysis.
- Upon completion of task activities, submit field notes, photographs, and validated analytical results for review.
- Provide daily updates via phone or email to the Unit Project Manager.

<u>Sub Task B: First Phase:</u>

- Base the work plan and cost estimate on information gathered during your previous site activities.
- Visually survey all water supply wells, springs and surface water intakes within 1,000 feet of the waste disposal boundary.
- Provide a CAD map(s) that identifies property lines and zoning classifications on property containing the waste disposal area and adjacent properties including roadways and easements. Identify a radius of 500 feet from the landfill perimeter. This map should be titled "Vicinity Map."
- Determine if there are any documented sensitive environments located within 500 feet of the landfill perimeter. Provide a table that includes contacts and responses. If any documented sensitive environments are present, they should be cross-referenced to a CAD map titled "Sensitive Environments Map." Note that the Natural Heritage Program is to be contacted by email only.
- Delineate the horizontal extent of the waste disposal area using single frequency geophysical methods on a 50-foot grid. Extend the grid approximately 25 feet off of the estimated landfill perimeter. Collect GPS coordinates along the waste disposal boundary. Include tabulated coordinates as an appendix. Start the tabulated coordinates for the waste disposal area perimeter at the northernmost point of the perimeter and list them in a clockwise progression around the

perimeter. Provide a map titled "Geophysical Survey Results Map" that shows both the landfill perimeters as visually determined by previous delineations borings and the geophysical survey. This map and all other maps included in the report are to be shown in feet.

- Provide a description of local geologic and hydrogeologic conditions based on reference materials.
- Provide a CAD map(s) that identifies area(s) on the site property that are paved or landscaped, including the type and extent of ground cover, general surface conditions, structures, septic systems, storm water conduits, and underground utilities. Use multiple maps if necessary to **clearly** show all required information. All maps should be drawn to scale with a bar scale, legend, and north arrow. Title this map "Site Map."

Sub Task C: Above Ground Vapor:

- Evaluate the potential for above ground vapors by collecting landfill gas readings across the waste disposal area on a 50-foot grid using field instrumentation. The attached figure presents the location of the waste disposal area.
- Record measurements of methane, oxygen, carbon dioxide, hydrogen sulfide, and total volatile organic compounds at each point.
- Collect measurements of methane, oxygen, carbon dioxide, hydrogen sulfide, and total volatile organic compounds at each point.
- Record barometric pressure, ambient temperature, and humidity readings at least every hour during the screening.
- Do not perform screening on rainy or windy days.

Sub Task D: Landfill Gas Probe Screening:

- Screen the landfill gas probes (GP-1 through GP-5) for volatile organic compounds (VOCs), methane, oxygen, carbon dioxide, barometric pressure, hydrogen sulfide, temperature and humidity.
- Screen new landfill gas probes at least 24 hours after installation.
- Compare landfill gas probe screening results with the IHSB Residential Vapor Intrusion Screening levels.
- Do not abandon the gas probes following screening. A review of the field testing results will determine subsequent sample collection.

Sub Task E: Surface Water/Sediment Investigation:

- Collect both a surface water and sediment sample from the Deep River at the three locations designated on the attached map (SW/SED-1, SW/SED-2 & SW/SED-3). Include hexavalent chromium analysis for the sediment samples.

Subtask F: Wetlands and Floodway Determination:

- Perform the necessary activities to identify and locate potential wetlands and floodway located in the vicinity of the waste disposal area at the referenced site.

Subtask G: Surveying

- Complete a survey of the site by a North Carolina Licensed Professional Land Surveyor to include site boundaries (waste disposal area and areas of contamination), topographic contours, property lines within the site boundaries, unique site features, wetlands and floodway, and on-site structures.
- For Plat notice, refer to the instructions for preparing a notice of an Inactive Hazardous Substance or Waste Disposal Site for Recordation.
- Upon completion of task activities, submit field notes, photographs, and validated analytical results for review.

Scope of Work for Task Order 673FP-1: Report Compilation

Compilation of the report will be approved as a separate task order. The Report will be titled "Remedial Investigation – First Phase and Media Sampling".

The report is to contain the following items:

- Text, tables, and figures to adequately summarize task activities.
- A section concerning any variations from the work plan or your SOPs.

Provide the work plan and cost estimate by August 31, 2016. A task authorization to begin work will be issued based on the approved proposal. Do not proceed with tasks prior to receiving this authorization. If you have any questions or concerns, contact me at (919)707-8230.

Sincerely,

David P. Kwiatkowski, Hydrogeologist
Division of Waste Management – NCDEQ